THE PLOUGH BOY.

BY HENRY HOMESPUN, JR.

"He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap."—BUT—"He that tilleth his land shall have plenty of bread."—*Ecclesiastes.*

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ORIGINAL.

FOR THE PLOUGH BOY.

Answer to Mr. Genet's Reply

TO THE COUNTRY CURATE'S REMARKS, &c. &c.

That I might have drawn an erroneous conclusion from Mr. GENET'S words:—"Owing to a great diminution of the radiant matter usually absorbed by the earth, our globe last year has been comparatively negative," is a very possible thing: And if I rightly understand his explanation in his "Answer" we are agreed that the sun's rays are the *exciting* cause of electricity. This part of the debate is then at rest.

Whether the sun be a huge galvanic pile, or

"——a piece
Of red hot iron as big as Greece,"

is of very little importance in the present discussion; for Mr. Genet's positions involve the origin and motion of the earth, other planets and the comets, and do not necessarily introduce the substance of the sun's body. Still I will remark, that if the planets, &c. are parts of the sun's body, disjoined from him by any cause whatever, we should most naturally conclude that they would retain the nature and properties of the sun: If the sun be galvanic, the planets must be so too, and emit light instead of being opaque as they really are.

But Mr. G. seems to have misunderstood one of my remarks, and has given me credit for more ignorance that I am willing to claim. I did not mean to say that no person *ever* seriously maintained that the sun was the parent of the planatatary system: I well knew that some philosophers had maintained that opinion. But I meant to say, and in fact did say, I was surprised to find any Christian, or any one who was acquainted with the laws of planetary motion, as laid down by Newton, ever supposing that a body projected from the sun could revolve round the sun: or when once in revolution that it could ever deviate from its orbit by centrifugal force. My words were, "I had thought that the crude notion, &c. was not seriously maintained by any person, *who respected the account that Moses gave of the cosmogony of the world: or who placed any reliance on the mathematical demonstrations of central and projectile forces.*" And I think so still. The man who respects not these two last considerations will perhaps adopt Mr. Buffon's opinion; or with the Bramins count up two or more millions of years to the earth; or with some ancient Philosophers contend that the earth is eternal, either of which notions is more plausible than that of Buffon: But until it can be shown that Newton's doctrine of planetary motion is false, and Moses's history a fable, the Christian will continue to believe that God *created* the earth, planets and comets, and by projectile force caused them to revolve, in undeviating orbits, about the sun, as their common centre.

"Buffon has *calculated*," says Mr. G. "that "about 96000 years ago a comet having fallen "obliquely into the sun, detached from it about "the 650th part of the bulk of that planet," &c. from which our planetary system was procreated!

1. Where is Buffon's proof that a comet so fell? He can produce no testimony of such an event happening 96000 years ago. If he calculated it, it was I suppose upon mathematical principles, for so the word *calculate* is applied in philosophy. His calculation must then have been founded upon the periodical revolution of the comet, whose regular return, eccentricity and laws of motion must have been known to Mr. Buffon, else he could make no *calculation.* But Mr. G. says that philosophers are utterly in the dark on the origin and *movements* of comets, and that the *calculation* of their periodical return is almost chimerical. Buffon's *calculation* then probably partook of this *chimerical* nature, and cannot be relied on. If Mr. Buffon's calculation was a mere hypothesis, it is still worse and deserves no attention.

2. But supposing a comet did strike into the sun 96000 years ago, what ground is there for believing that it struck off one 650th part of the sun's body? Mathematics cannot determine the truth of occurrences which do not depend upon magnitude and motion. What testimony is there that any part of the sun was ever separated from his body? We may safely answer, there is none. Or did Mr. Buffon cast up the solid contents of the planets and satellites, and find the sum to be equal to the 650th part of the sun's body, and thence conclude they must have been struck from him? Such logic would be similar to the following:—"The earth is the centre of the "moon's monthly revolution; the moon is one "thirteenth part as large as the earth; there-"fore the moon must have been originally struck "from the earth!"

The truth seems to be, if I have been rightly informed, Buffon rejected the cosmogony of Moses, and was willing to adopt any system that would free him from the trouble of believing in divine revelation; and it is with deep regret, that the Christian beholds any of his sceptical opinions held up to public view.

But were Newton and other philosophers so "utterly in the dark on the origin and movements of comets," as Mr. G. suggests? It is true that Sir Isaac's system, following the road market out by Lord Bacon, did not promise to show the causes of the natural world; it was employed in investigating the laws of phenomena exhibited in the natural world. The laws of matter are the proper object of experimental philosophy, and whenever it deviates from the study of them, and employs itself upon searching for the causes of things, it will invariably fall into hypothesis and difficulty, by substituting conjecture for proof—

Attempting to grasp too much, it will retain nothing with certainty. "Natural philosophy, is "employed in investigating the laws of nature "by experiment and observation, and in explain- "ing the phenomena of nature by these laws."* But the motion of the comets is a proper subject for philosophical experiment, and Newton did not neglect it. He viewed with attention the great one of 1680, and, I think, calculated mathematically its period to be 575 years. Dr. Halley foretold the return of the comet that appeared in 1759, and the event answered, in a remarkable degree, his prediction.† Upon every new appearance of a comet at the present day, we find observations made upon its motion, eccentricity, and place of its orbit. Its elements are calculated upon this proposition—"Comets describe eccentric ellipses about the sun, placed in one of their foci." And if the astronomer can have sufficient time to mark its motion in its orbit, its period can be accurately calculated. The observations made and published at New-Haven upon the one which appeared last July, were made upon the confident supposition, that their orbits are uniform, and the knowledge of their elements within the power of geometrical calculation. We must therefore still suppose that their motions are uniform; describing equal areas in equal times; that they cannot be driven from their orbits by centrifugal force, nor be made to plunge into the sun by centripetal force; and that nothing, save the Almighty hand which formed them at the creation of the world, and placed them in their present settled order of motion, ever did or ever can di-turb the harmony of that motion, so as to cause them to interfere with other bodies, or quit their own orbits.

I conclude with assuring Mr. G. that whenever he shall be prepared with his steam Balloon to make a voyage of discovery among the planets and *vagrant* comets, if he should miss the company, he shall still, for succes in his arduous undertaking, have the hearty good wishes of

A COUNTRY CURATE.

*Enfield's Phil. Def. 1. †Ibid B. 7. part 1. on Comets.

TO THE EDITOR OF THE PLOUGH BOY.

Pendleton Court-House, S. C. Aug. 29, 1819.

SIR,

The Plough Boy has been received, and has given great satisfaction to all who have perused it. I cannot refrain from adding my congratulations, to those you have doubtless received from other quarters, on the very meritorious and useful pursuit to which you have devoted yourself, and fervently hope the result may be beneficial to yourself, as well as your country. The most pure and unmixed feeling of pleasure in which an American citizen can indulge himself, is the well-founded consciousness of having been useful to so good a country, and to its most important interest. * * *

Does your climate admit the introduction of seed into your land as early as the last of April or the beginning of May? If it does, permit me to recommend to the notice of the farmers of your vicinity, the culture of the common red pea, (cow peas) for the purpose of making a most substantial rich winter fodder. I do not mean pea-*straw*. That is better than any other straw, but the pea-vines should be cut the last of August, cured as hay is, only it takes ten days or a fortnight to complete the curing of it, during which time it should be turned frequently. A small bundle of these vines, (from which the leaves will, or ought to, drop off in the curing,) chopped up in a straw-cutter, or chopping-box, will maintain farm stock in excellent order all winter. It will increase the milk of cows; and horses will even thrive on it, and do the common *winter* work of a farm. It is no longer an experiment with me: I have had for many years from ten to twenty acres of peas, drilled three feet apart, ploughed only twice, after which the vines run across the rows. They should be cut with a small briar-hook, the handle a little bent up, so that when the wooden handle is inserted, the reaper may stand nearly upright. Many of the young pods will be from two to six inches long, but they will cure, at that age, as soon as the vine. It is essential, however, to the success of this process, that the peas be planted early, as they will send up a short main stem, and numerous long horizontal runners or vines; if planted late, the main stem will rise, and the plant form a round bunch, which will be covered with pods in the fall, but there will be no vines. I have made twenty-five heavy, large waggon loads, as much as four good horses could draw, from seven acres of very poor, stiff, red clay land, and I feel confident that double the quantity may be made from good land in good order.

It has been objected to pea-fodder that it takes too long to cure, as during a fortnight the probability is, it may often get wet. This is true, but it is equally true that this does not materially injure it. It will only affect the color a little. Indeed I have known it turned quite black by repeated heavy rains, and yet cattle preferred it to the common fodder of the country. In short it is as superior to other hay as the ruta baga is to other turnips. If to this we add that it is an ameliorating crop, shading the land from evaporation, and leaving a considerable deposit of decayed leaves on it, and that it comes off exactly in time to prepare for a wheat crop, I think the subject will be deemed worthy of consideration, even by the intelligent farmers of New-York.

I pray your pardon for thus trespassing on your time, to which I am prompted solely by the *chance* of being useful. With my best wishes for your success and welfare, I remain, very respectfully, your obd't. serv't.

THOMAS PINKNEY, Jr.

DEVENPORT, Del. Co. August 13, 1819.

SIR—Having very lately received the entire numbers of the PLOUGH BOY, and being highly gratified with the plan and performance, please to accept this as a token of my best respects and well wishes for the success of the paper, which I think will tend greatly to improve our homespun produce and manufactures. Rest assured, sir, the paper will be frequently recommended among Homespun friends of good regulations.

I would wish gentlemen, among the family, would publish in the columns of your useful paper, their improvements in the art of raising honey, or bees, as nothing appears to be said of that useful insect; while their food is very agreeable to the homespun taste, and very proper to mingle with the food that is afforded from crops of wheat and corn. It would seem that those who make any considerable proficiency in the art, keep it a secret, which is not commendable in the family circle.

Improvements in the art of making butter and cheese, and keeping them sweet and pure through hot seasons, might gratify some readers, as sweet butter, good cheese, and plenty of honey, suit well with biscuits.

This essay may well be termed short but sweet.

Your obedient servant, XYZ.

Mr. Henry Homespun, Jr.

REMARKS.

In compliance with the wishes of our Delaware correspondent, we will state that before the commencement of the next season we shall be able to give our readers a full essay on BEES—their natural history—the best method of managing them—their diseases, and the remedies for them, together with the most effectual method of preventing the depredations of the insect that has so lately spread desolation in Bee-Hives in this country. We shall also be enabled before that time to give a dissertation on the art of making Cheese in the best manner, as pursued in England and elsewhere.

In regard to making butter of the best and most durable quality, and for making the greatest quantity from the milk, we will give the reader the following.

Dr. Anderson's receipt for curing butter.—Take one half, in weight, of clean fine salt, a fourth of salt petre, and another fourth of brown sugar; these ingredients are to be carefully mixed together, and one ounce of this mixture is to be applied to every pound of fresh butter, taken

from the churn, with the butter-milk well washed out in clean cold water. After mixing these ingredients effectually in the mass of butter, it is to be packed down, and kept at least a month before it is fit for use. By this time it acquires a rich marrowy taste, superior to that of butter cured in the common way, and this taste and flavor it will retain, even for years, if carefully kept.

For keeping butter sweet that is salted in the usual way, the plan recommended by the President of the society for the promotion of the useful arts in this state* should be adopted. The butter is made into rolls, and is then put into a cask of pure strong brine, and for keeping the rolls completely immersed in this liquid, there should be a cover, suitable to the dimension of the inside of the cask, to be laid on the rolls, and sunk beneath the surface of the brine by a weight laid on it, which may be a block of wood, fastened to the cover, that will sink only a given depth. The brine does not penetrate the butter so as to give it any additional saltness. For clarifying the brine it should occasionally be scalded, the scum taken off, and more salt should then be added to it if necessary. In this way butter may be kept perfectly fresh for years.

For obtaining the greatest quantity of butter from the milk, we give the following as taken from the late Edinburgh Encyclopedia. After the milk is straiued it is to be put in a vessel and gradually heated till it arrives at nearly the boiling point; the directions are, that this operation should be so slow and gradual as to require two hours in arriving at this degree of heat, but we doubt whether this length of time be so essential. Ebullition is always preceded by bubbles rising to the top, and at this time the milk is to be taken off, and is then to be set away in vessels of the usual form, with the usual quantities in each, when in about 24 hours the cream will have fully risen. In this way it is said that about one sixth more of cream will be obtained than when milk is treated in the usual manner; and what is of no small importance, the operation of churning is performed in less than a tenth part of the time that is usually requisite. In heating the milk, however, there is danger of smoking it, if care be not taken; and to avoid this we recommend an apparatus for heating the milk by steam. Cream formed in this way is esteemed, and used as an article of luxury in London.

* Simeon De Witt, Esq.

Grand Musical Invention.

The fate of many projectors has been so melancholly, that it requires, at this day, the daring spirit, and the enthusiasm which are naturally alled to genius, in any man to announce himself as the inventor of any thing new and extraordinary. The patience and perseveraace of a Galileo, and the adventurous spirit of a Fulton, are necessary to him who would benefit his species by the result of original plans and forms, or that of new combinations of old and tried ones. Hence we cannot but admire and respect the man, who, regardless of the hard fate of so many who have trod before him the thorny path of improvement, still has the fortitude or philosophy of mind, to spend years in toil and study; to labor by day, with persevering industry, and trim the midnight lamp, with the vigilance, ascribed to the ancient vestals, in bringing to perfection an idea, from which he hopes to reap fame and benefit to himself, and to reflect credit, at the same time, upon the genius of his country.

These brief remarks are suggested by a visit which we have lately been called upon to make, by the inventor of a Musical Instrument, in this city. We were asked a few days since, by Mr. Plimpton, of Plain-street, to call at his house and view an instrument which he has nearly completed, and in the invention and practical combination of which he has been engaged nearly fifteen years. We called and were delighted by the view, as well as the sweet sounds of a grand musical machine, which combines within itself, aided by one performer only, the martial band—the orchestra of a theatre—the Church Organ, and the Harp. But we shall not detain the reader from the plain unvarnished tale of the artist himself, which accounts for the origin of his invention, and details the obstacles he has encountered in pursuing his favorite pursuit through years of trial, labor, poverty and embarrassment. May the private munificence and the public spirit of his country, enable him to reap the fruits of his genius.

DESCRIPTION OF THE APOLLINO.

Derivation of the name.—APOLLO, the God of Music—EINO, a Greek word signifying the whole.

The inventor is by profession a teacher of Music, but not having sufficient encouragement in that profession, he has for a number of years past gained a poor living by teaching a common English school. He early cultivated the science of Music, under the tuition of Dr. G. K. JACKSON; has composed a number of pieces of Music, consisting of 30 psalm tunes, in four parts; 7 anthems, and 2 chaunts; a cannon for four choirs of singers, and the Oratorio of "Blow ye the trumpet in Zion," consisting of 46 pages in score; a variety of solos, duetts, trios, quartettes, quintettes, &c. for various instruments; three overtures, five symphonies and two sonnatas; "The Battle of Orleans," and "Perry's victory on lake Erie." These ten full pieces, and the Oratorio, are arranged for a Grand Orchestra, in 9, 13, and 20 parts, and also for the piano forte.—Twenty-seven marches, 7 waltzes, a set of cotillions, a number of quick-steps and small pieces for a martial band, and for a small orchestra; 12 songs and 2 duetts for the voice, with accompaniments for the piano forte and a small orchestra.

In 1814 he gave a Concert at Washington Hall, in the city of New-York, consisting entirely of his own compositions. The battle pieces, and 2 songs, viz. "The Tars of Columbia," and "Behold the lovely vernal rose," and the duett of "William and Harriot," being national pieces, were at this performance very much applauded. This Concert was styled the first American Concert. Seven-eighths of the gentlemen who composed the orchestra were foreigners, who observed that if it was American music, it was necessary to call upon foreigners for the performance of it. Nothing, however, was said by those gentlemen of its being borrowed music, or poor compositions; but that the parts were well adapted to the various instruments, the style simple and easy. But few discords were introduced in these compositions, except to set off more pleasantly the beauties of concord. This Concert was not so well attended as other were, given by foreigners, although a number of notices appeared in the National Advocate and Columbian, favourable to the performance, by authors unknown to the composer. The emoluments of this performance were hardly sufficient to pay the expenses of the performers, and some of them gave the author their services gratis, while others were clamerous for pay. This first induced the author to attempt the instrument called the APOLLINO. For model the inventor had none, except the science of music. The author imagined that could he but invent a machine which could perform all the music of this grand orchestera, he should be able himself to perform his compositions for much less expense than at the above Concert; and he doubted not but that if he could complete this machine, that the scientific part of the world would amply compensate him. Hope encouraged him; first a sort of organ was made, on which a number of experiments were tried, and the whole excited the laughter or pity of professional instrument makers; "too much wind—not enough wind—strings too long—too small—not long enough—too thick—no proportion correct—not like any thing they ever saw," &c. &c. However, whatever answered the purpose was drafted on a scale of exact proportion. The combination of the whole together has employed the inventor many years; many nights when the world was wrapt in sleep, he has employed in inventing, destroying, combining, &c. &c.

The APOLLINO combines the music of a Church Organ, a Grand Orchestra, a Martial Band, and a Harp. The whole or any part to be performed by one person on six octaves of piano forte or organ keys and five pedals.

Organ.—49 pipes of stop diapason, 49 do. principal, open diapason of organ, great double diapason of organ.

Swell.—25 dulicanno, 25 flagoletts, 25 imitation of birds.

Martial and Orchestra.—25 clarinets, 4 bugles, 25 trumpets, 8 french horns, 12 bassoons, 10 serpents, 28 flutes, 28 fifes, 37 strings on violin and violincello, 37 do. on harp, bass drum, snare drum, symbols. *Harmonica.*—25 musical glasses.

Mr. PLIMPTON is a native of Medway, Mass.

SELECTIONS.

Agricultural Chemistry, No. VII.

BY HUMPHREY DAVY.

OF THE FLOWERS.

The leaves are necessary for the existence of the individual tree, the *flowers* for the continuance of the species. Of all the parts of plants they are the most refined, the most beautiful in their structure, and appear as the master-work of nature in the vegetable kingdom. The elegance of their tints, the variety of their forms, the delicacy of their organization, and the adaptation of their parts, are all calculated to awaken our curiosity, and excite our admiration.

In the flower there are to be observed, 1st. the *calyx*, or green membranous part forming the support for the coloured floral leaves. This is vascular, and agrees with the common leaf in its texture and organization; it defends, supports, and nourishes the more perfect parts. 2d. The *corolla*, which consists either of a single piece, when it is called monopetalous, or of many pieces, when it is called polypetalous. It is usually very vivid in its colours, is filled with an almost infinite variety of small tubes of the porous kind;
[62] it incloses and defends the essential parts in the interior, and supplies the juices of the sap to them. These parts are, 3d, the *stamens* and the *pistils*.

The essential part of the stamens are the summits or *anthers*, which are usually circular and of a highly vascular texture, and covered with a fine dust called the *pollen*.

The pistil is cylindrical, and surmounted by the *style*; and top of which is generally round and protuberant.

In the pistil, when it is examined by the microscope, congeries of spherical forms may usually be perceived, which seem to be the bases of the future seeds.

It is upon the arrangement of the stamens and the pistils, that the Linnean classification is founded. The numbers of the stamens and pistils in the same flower, their arrangements, or their division in different flowers, are the circumstances which guided the Swedish philosopher, and enabled him to form a system admirably adapted to assist the memory, and render botany of easy acquisition; and which, though it does not always associate together the plants most analogous to each other in their general characters, is yet so ingeniously contrived as to denote all the analogies of their most essential parts.

The pistil is the organ which contains the rudiments of the seed; but the seed is never formed as a reproductive germ, without the influ-
[63] ence of the pollen, or dust on the anthers. This mysterious impression is necessary to the continued succession of the different vegetable tribes. It is a feature which extends the resemblances of the different orders of beings, and establishes, on a great scale, the beautiful analogy of nature.

The ancients had observed, that different date trees bore different flowers, and that those trees producing flowers which contained pistils bore no fruit, unless in the immediate vicinity of such trees as produced flowers containing stamens. This long established fact strongly impressed the mind of Malpighi, who ascertained several analogous facts with regard to other vegetables. Grew, however, was the first person who attempted to generalize upon them, and much just reasoning on the subject may be found in his works. Linnæus gave a scientific and distinct form to that which Grew had only generally observed, and has the glory of establishing what has been called the sexual system, upon the basis of minute observations and accurate experiments.

OF THE SEED.

The *seed*, the last production of vigorous vegetation, is wonderfully diversified in form. Being of the highest importance to the resources of nature, it is defended above all other parts of the plant; by soft pulpy substances, as in the esculent fruit, by thick membranes, as in the leguminous vegetables, and by hard shells, or a thick epidermis, as in the palms and grasses.

In every seed there is to be distinguished
[64] 1, the *organ of nourishment*; 2, the nascent plant, or the *plume*; 3, the nascent root, or the *radicle*.

In the common garden bean, the organ of nourishment is divided into two lobes called *cotyledons*; the plume is the small white point between the upper part of the lobes; and the radicle is the small curved cone at their base.

In wheat, and in many of the grasses, the organ of nourishment is a single part, and these plants are called *monocotyledonous*. In other cases it consists of more than two parts, when the plants are called *polycotyledonous*. In the greater number of instances, it is, however, simply divided into two, and is *dicotyledonous*.

The matter of the seed, when examined in its common state, appears dead and inert; it exhibits neither the forms nor the functions of life. But let it be acted upon by moisture, heat, and air, and its organized powers are soon distinctly developed. The cotyledons expand, the membranes burst, the radicle acquires new matter, descends into the soil, and the plume rises towards the free air. By degrees, the organs of nourishment of dicotyledonous plants become vascular, and are converted into seed leaves, and the perfect plant appears above the soil. Nature has provided the elements of germination on every part of the surface; water and pure air and heat are universally active, and the means for the
[65] preservation and multiplication of life, are at once simple and grand.

To enter into more minute details on the vegetable physiology would be incompatible with the objects of these Lectures. I have attempted only to give such general ideas on the subject, as may enable the philosophical agriculturist to understand the functions of plants; those who wish to study the anatomy of vegetables, as a distinct science, will find abundant materials in the works of the authors I have quoted, page 9, and likewise in the writings of Linnæus, Desfontaines, Decandolle, de Saussure, Bonnet, and Smith.

The history of the peculiarities of structure in the different vegetable classes, rather belongs to botanical than agricultural knowledge. As I mentioned in the commencement of this Lecture, their organs are possessed of the most distinct analogies, and are governed by the same laws. In the grasses and palms, the cortical layers are larger in proportion than the other parts; but their uses seem to be the same as in forest trees.

In bulbous roots, the alburnous substance forms the largest part of the vegetable; but in all cases it seems to contain the sap, or solid materials deposited from the sap.

The slender comparatively dry leaves of the pine and the cedar perform the same functions as the large and juicy leaves of the fig tree, or the walnut.

Even in the cryptogamia, where no flowers are distinct, still there is every reason to believe that the production of the seed is effected in the same way as in the more perfect plants. The mosses and lichens, which belong to this family, have no distinct leaves, or roots, but they are furnished with filaments which perform the same functions; and even in the fungus and the mushroom there is a system for the absorption and æration of the sap.

FROM THE ALBANY ARGUS.

Treatise on Agriculture.

SECTION IV.

Of the Analysis of Soils, and of the Agricultural relations between soils and plants.

We have seen that the earths have a threefold capacity; that they receive and lodge the roots of plants and support their stems; that they absorb and hold air, water and mucilage—aliments necessary to vegetable life; and that they even yield a portion of themselves to these aliments. But we have also seen that they are not equally adapted to these offices; that their parts, texture and qualities are different; that they are cold or warm, wet or dry, porous or compact, barren or productive, in proportion as one or other may predominate in the soil; and that to fit them for discharging the various functions to which they are destined, each must contribute its share, and all be minutely divided and intimately mixed. In this great work nature has performed her part, but as is usual with her, she has wisely and benevolently left something for man to do.

This necessary march of human industry, obviously begins by ascertaining the *nature of the soil*. But neither the touch, nor the eye, however practised or acute, can in all cases determine this. *Clay*, when wet, is cold and tenacious—a description that belongs also to magnesian earths; *sand* and *gravel* are hard and granular; but so also are some of the modifications of lime: *vegetable mould* is black and friable, but not exclusively so; for schistous and carbonaceous earths have the same properties.

It is here then, that chemistry offers herself to obviate difficulties, and remove doubts; but neither the apparatus nor process of this science, are within the reach of all who are interested in the enquiry, and we accordingly subjoin a method, less comprehensive, but more simple and sufficiently exact, for agricultural purposes, and which calls only for two vases, a pair of scales, clean water, and a little sulphuric acid.

"1st. Take a small quantity of earth from different parts of the field, the soil of which you wish to ascertain, mix them well together and weigh them; put them in an oven, heated for baking bread, and after they are dried, weigh them again; the difference will show the *absor-*

bent power of the earth. When the loss of weight in 400 grains, amounts to 50, this power is great, and indicates the presence of much animal or vegetable matter; but when it does not exceed twenty, the absorbent power is small, and the vegetable matter deficient. (1)

2d. Put the dried mass into a vase with one fourth of its own weight of clear water; mix them well together; pour off the dirty water into a second vase, and pour on as much clean water as before; stir the contents, and continue this process until the water poured off, is as clear as that poured on the earth. What remains in the first employed vase is *sand, silicious or calcarious.*

3d. The dirty water, collected in the second vase, will form a deposit, which (after pouring off the water) must be dried, weighed and *calcined.* On weighing it *after* this process, the quantity lost, will shew the portion of *animal* and *vegetable mould contained in the soil*; and,

4th. This calcined matter must then be carefully pulverised and weighed, as also the first deposit of sand, but without mixing them. To these, apply (separately) sulphuric acid, and what they respectively lose in weight, is the portion of *calcarious* or *aluminous earths* contained in them. These last may be separated from the mass by soap lye, which dissolves them."(2)

Here is the light we wanted. In knowing the disease, we find the cure. Clay and sand qualify each other; either of these will correct an excess of lime; and magnesian earth, when saturated with *carbonic acid*, becomes fertile.

But entirely to alter the constitution of a soil, whether by mechanical or other means, is a work of time, labor and expense, and little adapted to the pecuniary circumstances of farmers in general. Fortunately, a remedy, cheaper, more accessible and less difficult, is found in that *great diversity* of habits and character, which mark the vegetable races. We shall, therefore, in what remains of this section, indicate the principal of these, as furnishing the basis of all rational agriculture.

1st. *Plants have different systems of roots, stems and leaves, and adapt themselves accordingly to different kinds of soils*: the Tussilago prefers clay, the Spergula, sand; Asparagus will not flourish on a bed of granite, nor Musus Islandicus on one of alluvion. It is obvious, that *fibrous rooted* plants, which occupy only the surface of the earth, can subsist on comparatively stiff and compact soils in which those of the leguminous and cruciform families would perish, from inability to penetrate and divide.

2d. *Plants of the same, or of a similar kind, do not follow each other advantageously in the same soil* Every careful observer must have seen how grasses alternate in meadows or pastures, where nature is left to herself. At one time, timothy, at another clover, at a third red top, and at a fourth blue grass prevails. The same remark applies to forest trees; the original growth of wood, is rarely succeeded by a second of the same kind; pine is followed by oak, oak by chesnut, chesnut by hickory. A young apple tree will not live in the place where an old one has died; even the pear tree does not thrive in succession to an apple tree, but stone fruit will follow either with advantage. "In the Gautinois, "(says Bosc,) safron is not resumed but after a "lapse of twenty years; and in the Netherlands, "flax and colzat require an interval of six years. "Peas, when they follow beans, give a lighter "crop than when they succeed plants of another "family."(3)

3d. *Vegetables, whether of the same family or not, having a similar structure of roots, should not succeed each other.* It has been observed, that trees suffer considerably by the neighborhood of sainfoin and lucern, on account of the great depth to which the roots of these plants penetrate—whereas culmiferous grasses do them no harm.

4th. *Annual or biennial treefoils, prevent the escape of moisture by evaporation, or filtration, from sandy and arid soils*, and should constantly cover them in the absence of other plants; (4) while *drying and dividing crops*, as beans, cabbages, chickory, &c. &c. *are best fitted to correct the faults of stiff and wet clays.*

5th. *When plants are cultivated in rows or hills, and the ground between them is thoroughly worked, the earth is kept open, divided and permeable to air, heat and water, and accordingly receives from the atmosphere nearly as much alimentary provision as it gives to the plant.* This principle is the basis of the drill husbandry.

6th. *All plants permitted to go through the phases of vegetation (and of course to give their seeds) exhaust the ground in a greater or less degree; but if cut green, and before seeding, they take little from the principle of fertility.*

7th. *Plants are exhausters in proporlion to the length of time they occupy the soil.* Those of the culmiferous kinds, (wheat, rye, &c.) do not ripen under ten months, and during this period, forbid the earth from being stirred; while, on the other hand, leguminous plants occupy it but six months, and permit frequent ploughings. This is one reason why culmiferous crops are greater exhausters than leguminous: another is, that the stems of culmiferous plants become and hard and flinty, and their leaves dry and yellow, from the time of flowering till the ripening of the seed—loosing their inhaling or absorbing faculties—circulating no juices, and living altogether in their roots, and on aliments exclusively derived from the earth—whereas leguminous or cruciferous plants, as cabbages, turnips, &c &c. have succulent stems, and broad and porous leaves, and draw their principal nourishment from the atmosphere. The remains of culmiferous crops also are fewer and less easily decomposed, than those of the leguminous family.

8th. *Meadows, natural and artificial, yield the food necessary to cattle, and, in proportion as these are multiplied, manures are increased and the soil made better.* Another circumstance that recommends them is, that so long as they last, they exact but little labour, and leave the whole force of the farmer to be directed to his arable grounds.(5)

9th. *Grasses are either fibrous or tap-rooted, or both. The remarks already made in articles* 1, 2 *and* 3. *apply also to them.* Timothy, red-top, oat-grass, and rye-grass, succeed best in stiff, wet soils. Sainfoin does well on soils the most bare, mountainous and arid; lucern and the trefoils, (or clovers,) only attain the perfection of which they are susceptible, in warm, dry, calcarious earth.

10th. *The ameliorating quality of tap-rooted plants is supposed to be in proportion to their natural duration*; annual clover, (lupinella) has less of this property than biennial, (Dutch clover,) biennial less than sainfoin, and sainfoin less than lucern.

11th. *Any green crop, ploughed into the soil, has an effect highly improving*; but for this purpose, lupins and buckwheat (cut when in flower) are most proper.

12th. *Mixed crops* (as Indian corn, pumpkins, and peas and oats,) *are much and profitably employed*, and *with less injury to the soil than either corn or oats alone.*

1.] See Davy's elements.

2.] This method of analysing soils, is that described by M. Bose, member of the institute of France, &c. and recommended to French agriculturalists.

3.] The ill effect of a succession of crops of the same kind was not unknown to the Romans. We have proof of this in the following passage of Festus: "Restibilis ager fit qui continuo biennio seritur farreo spico id est aristato, quad, ne fiat, *solent qui pradia locant, excipere.*"

4.] The "Sterilis tellus medio versatur in æstu" of Virgil, shows the opinion he entertained of a husbandry that left the fields without vegetation.

5.] The good effect of these mixtures was known to the ancients, from whom the practice has descended to us. What a picture of fertility and abundance have we in the 22d chap. 18th book of Pliny's Natural History: "Sub vite seritur frumentum, mox legumen, decinde olus, omnia, eodem anno, omniaque aliena umbra aluntar."

Parkes's Letter.

EXTRACTS FROM THE APPENDIX

TO PARKES'S LETTER RECOMMENDING SALT AS A MANURE, &C.

Extracts from old writers of credit, on the employment of salt in agriculture, and in feeding cattle.—CONTINUED.

In the chapter respecting the treatment of land over-run with weeds, Mr. Markham directs such land to be covered with a certain black plant growing on the sea shore, which is to be ploughed in, and the ground harrowed; it is then to be sown with pigeons' and pullens' dung mixt together, allowing to every acre two or three bushels thereof, and he adds, "but in case you can neither get Salt, sea-sand, nor sea-weeds, then you shall by no means omit the steeping of your seed, neither shall you fail before you sow your seed, to mix with your pidgeons' and pullens' dung a full equal part of bay-salt well dried and broke, and so sown with the dung upon the land, and then the seed after it." Page 17.

In chapter V. entitled "of the ordering of all barren clays that are over-run with ling or heath," after giving directions how to make and dress the land, he adds, "And if the ground have been sanded (with salt sea-sand) you may sow your seed-wheat simply of itself, without any doubt of the plentiful increase thereof; but if it have not been sanded, then you shall not only steep your seed in brine, but also you shall mixe your seed with bay-salt, and so sow it into the ground." Page 27.

In the chapter which treats of the method of recovering such land as had been rendered sterile by the overflow of sea-water, Mr. Markham writes thus:

"In all my former relations, touching the bet-

tering of ground, I do apply, as one of my chiefest ingredients, salt-sand, salt-weeds, salt-water, salt-brine, ashes, and many other things of salt nature, as indeed all the manures and marles whatsoever must either have a salt quality in them, or they cannot produce fruitfulnesse ; so that it might be argued, if Salt be the occasion of fruitfulness and increase, then there cannot be much hurt done by these overflowes of the salt-water, that it should rather adde a fattening and enriching to the ground, than any way to impoverish it. But experience shews us the contrary ; and that there is nothing more noisome and pestilent to the earth than the superabundance and too great excess of saltnesse, &c." Page 50.

In the chapter on enriching of barren grounds for the growth of hemp and flax, he directs first to plough it, "then with the salt sea-sand, you shall sand it very plentifully, but if that be not to be gotten, and you be very well assured of the natural richness of the earth, you shall then sand it with the best red sand you can find near unto you, and upon every acre of ground you thus sand with fresh sand, you shall sow three bushels of bay-salt, and then plough up again the earth, sand and salt together, which should be done about the latter end of the yeare, as after Michaelmas, and so let the ground rest till seed-time, at which time you shall bring sea-weeds to your hemp land, and cover it all over with the same, and then you shall plough it again, burying the weeds within the earth. As for the weeding of this ground, you shall not respect it at all, for *it will put up no weed.*" Pages 67 and 69.

In the chapter on vermin Mr. Markham writes thus. "The next great devourers of grain are pismires or ants, which although it be but a little creature, yet it is so laboursome, that the grain which they carry away or destroy amounteth to a great quantity. If you manure your corn lands with ashes or salt-sand, you shall be well assured it will never breed pismires." Page 75.

5. Sir Hugh Platt, a writer of some eminence in the time of Oliver Cromwell, states it to be his opinion that it is Salt which makes all seeds to flourish and grow ; and that no dung which is laid on the barren ground could any way enrich the same, if it were not for the salt in it." see his *Jewell House of art and nature.*" London, 1653, chapter 104. Some other extracts from this curious volume have already been given in the foregoing letter.

THE PLOUGH BOY.

ALBANY : SATURDAY, SEPTEMBER 25, 1819.

The letter of Col. PINCKNEY, a distinguished Agriculturist of South-Carolina, to the Editor of this paper, will be found in our preceding columns ; and the subject is sufficiently important to deserve the attentive consideration of our NORTHERN PLOUGH BOYS.

SAUL and MATILDA are once more omitted—but shall appear—so shall OLIVER OLDENTIME, &c. in due season.

Geography.—We feel bound to call the attention of our readers to the plan of Mr. BUGBEE, in teaching Geography. This gentleman has recently opened a school in this city. We attended his examination last week. The young gentlemen examined, had been engaged only six weeks ; and they assured us, that previous to entering Mr. Bugbee's school they had never paid the least attention to the Science of Geography. We state, with pleasure, that they all evinced an astonishing proficiency, for so short a period of study. Each of them had finished, in that short period, five or six maps of different portions of the globe, some of them very well executed ; and they could promptly answer almost every question of importance in relation to the situation, extent, boundaries, &c. of every nation on the face of the globe. Mr. Bugbee uses no books—his system is almost altogether practical—he spends the forenoon in lecturing upon and explaining maps, and the afternoon is devoted by the scholars to the delineation of maps, under his constant inspection and superintendance. So far as we could judge of his system, by the result of last week's examination, we could not but highly approve of it.

REVOLUTIONARY.

Irish papers to the 21st of August, and London to the 16th of the same month, have been received in New-York. The most interesting articles received, relate to the revolutionary movements in England. The reformers of Manchester, and the neighboring villages, met at that place on the 16th of August, to the number of 100,000. Their banners bore such inscriptions as "Let us die like men, and not be sold as slaves!"—"Annual Parliaments and Universal Suffrage"—"Equal Representation or Death," &c. &c. After Messrs. *Hunt* and other leaders had mounted the hustings, the cavalry appeared, dashed through the multitude, destroyed the hustings, took Messrs. *Hunt & Co.* prisoners, killed 5, and wounded about 100. Several of the military, and of the police also lost their lives, and about 30 wounded. During the day upwards of *fifty* of the reformers were arrested and committed. But the main body retired, and were gathering again on the evening of the same day, and the next morning, in vast force, armed with pikes and such other weapons as they could collect, and were determined on taking revenge upon the military. A bloody scene undoubtedly ensued—perhaps the prelude to a general civil war. Well may we exclaim, under all our embarrassments, happy America! thrice happy land! May we be duly sensible of our blessings, and grateful to God from whom they flow!

Those arrested on the hustings, in company with Mr. Hunt were—Joseph Johnston, John Tyas, George Swift, John T. Sexton, Robert Wile, Thomas Taylor, Mary Wallworth, Sarah Hargreaves, and Eliza Grant. These, we presume, were leaders.

Accounts via Boston, of this affair, make the numbers killed and wounded, on both sides, greater than those above stated.—They give an extraordinary instance of female heroism and desperation, in a woman who suffered herself to be cut to pieces before she would surrender the standard of reform!

ANNUAL FAIRS AND CATTLE SHOWS,

Are to be held at Johnstown, Montgomery co. on the 12th of October; at Ballston Spa, Saratoga co. on the same day; at the village of Washington, in Dutchess co. on the 4th of November next; at the village of Herkimer, Herkimer co. on the 12th of October. The Agricultural Society of Washington co. meet at Granville on the 22d inst. at Whitehall on the 24th—and will meet at Fort Ann on the 27th—at Kingsbury on the 28th—and at Argyle on the 29th. Many other fairs are about to be held, of which we have not received notice; but we observe, with regret, that too many of them are held on the same day, at different places: If arrangements could take place, to have them follow in succession, on different days, throughout a considerable portion of the state, the general result might be much more beneficial.

Duanesburgh Agricultural Society, for the County of Schenectady.

This society was re-organized on the 11th inst. when the following persons were appointed officers, viz.

G. W. FEATHERSTONHAUGH, President.
ABRAHAM VOUGHT, Secretary.
FREDERICK VEEDER, Treasurer.

Standing Committee.—Lemuel Crofoot, John Wilkinson, J. E. Tripp, B. B. Tallman, Lewis Eaton, C. Allen, John M'Clave.

Viewing Committee.—John Wilkinson, E. Cady, J. E. Tripp, John Tulloch, Frederick Veeder.

The Autumnal Fair of this society will be held on the 14th day of October. Much pains will be taken to induce the Farmers of the adjacent country to drive all their fat stock to this Fair. The town of Duanesburgh is known to be one of the first grazing settlements in the state, and Cattle Dealers in general may confidently expect, upon this occasion, a fine assemblage of stock of every description.—*Communicated.*

FIRE.

We cannot give a better account of the fire of Saturday morning last, in this city, than is exhibited in the following article. We can only add the expression of our deep regret, that a worthy, industrious fellow-citizen has been so unfortunate.

About two o'clock on Saturday morning the Druggist Store of Mess. R. Meigs & Co. was discovered to be on fire. The store is situate on the corner of South Market and Hudson streets, and being of wood, as were also several adjoining buildings, it was apprehended that much damage would be done before the fire could be got under. When the firemen arrived with their engines the whole of the inside of the lower story and the combustibles in the cellar of the store were apparently on fire: yet the engines were plied with so much vigor and skill that the fire was subdued ere it made further progress.—The inside of the store was completely destroyed, and all the goods consumed or much damaged. Too much praise cannot be given to the firemen of this city for their alacrity of movement, and zeal in preserving the property of their fellow citizens from destruction on such occasions. This is the second instance which has occurred within a few months where property to an immense amount has been saved by their zeal, and the fire confined to the room in which it originated. Some idea may be formed of their perseverance and skill, by distant readers, when we inform them that the store lately occupied by R. M. Meigs & Co was an old wooden building, and notwithstanding the combustible matter with which it was filled, and the progress which the fire had made before discovered, yet they succeeded in extinguishing it before it reached to the second story, or had made its way through the wall of the building! The loss of goods by R. M. Meigs & Co. is estimated at from 4,000 to 6,000 dollars, no part of which was insured. The fire is supposed to have originated in the cellar. *Register.*

Weekly Summary.

Yellow Fever.—At New-York the yellow fever is gaining ground. Its present seat is about the Old Slip, and from thence up Wall-street the alarm is spread. In Baltimore this fever is rather increasing; in Charleston cases of it are becoming more frequent, and it has lately appeared in N. Orleans.

Doctors Crichton, Bluhn and Roos, of Baltimore, have been very successful in restoring patients sinking under pulmonary complaints by causing them to inhale the steam of boiling tar. Some of this is to be put in a stone or other suitable vessel, and placed over a burning lamp, in the room in which the patient resides, so as to keep the room constantly well filled with the vapor of the boiling tar, and in order to this the boiling should be repeated three or four times a day.

Cures for the Cancer.—Take the leaves of the balm of gilead tree, beat them fine, and apply them as a poultice to the sore. Another. Take some mutton suet, and add to it a spoonful of the filings of pure brass, apply the mixture as a plaister to the sore, and keep it there till it heals, which it will do in a short time. This, it is said, has been tried by several persons, and has never failed.

The *National Intelligencer* says the U. States' bank have suspended payment of the Louisiana debt, redeemable next month; the foreign holders have consented that the payment be deferred 3 years on payment of the usual yearly interest. By this means the amount can be employed in the aid

of commerce here, instead of being sent abroad. It will also enable the bank to discount the amount of loans they have drawn in, by curtail, since the first of October last, for the purpose of meeting this payment.

Commodore Bainbridge is appointed to command the Columbus, 74, now finishing at Washington.

It is feared that the United States' schooner Hornet has also been lost in the late gale at Mobile, as she has not since been heard of. She and the Firebrand (which was then lost) were in quest of the pirates infesting that quarter.

It should be generally understood, that the comptroller of this state requires the officers of agricultural societies to make oath, that a sum equal to that provided for by the state has been paid into the treasury of such societies, before issuing his warrant for the monies that are to be given by the state to each county, in pursuance of the law of last session.

The Lake George Watchman says, that most men of business, in that quarter, take the Washington and Warren bank bills at par, for goods, and in payment of debts, and expresses a belief that the bank will prove solvent.

Mr. John Haxon has published an improvement of his for preserving the flavor of salted fish, and for retaining their weight and firmness. For every hundred weight of fish he adds a quarter of a pound of ailum, dissolved in water, which is to be evenly distributed among the fish in laying them down with salt.

In digging down Beacon-street, in Boston, several grave stones have been discovered about 3 feet below the surface—one of a child, Hannah Francis, who died in 1668—some others later—the latest 1795.

During the last three summer months, 529 persons have been confined for debt in the jail of the town of Boston. Massachusetts, we believe, allows no limits to its prisons beyond their walls.

At Boston, on the 8th inst. the revenue cutter brought in two very strange fish, found eating a dead horse, supposed to be *mackerel sharks*; length, about 10 feet; circumference, about 7; length of fins, 2; breadth of flukes, 2 1 2; head and back like a dog fish; bellies white; fins like those of a whale; teeth very sharp; weight about 600 each.

A shock of an earthquake was felt in some parts of Rhode-Island about the 6th inst.

The mayor of Philadelphia has been engaged in the examination and commitment of the late rioters at Vauxhall garden. They consisted not merely of boys, but men of years also. Their conduct was not only criminal, but wanton and unprovoked. The report of a boy having been killed in the affray appears unfounded.

In Ohio the banks are in such repute that few of their bills pass out of the counties where they are located. Premiums of 50 per cent. have been paid by the merchants there for eastern bills, or those of the bank of the United States. The bilious fever prevails there, on the river settlements, in an unusual degree.

Jonathan Jennings is elected governor of Indiana, and Ratliff Boone, lieutenant governor, by large majorities.

A letter from Greenbay, of July 19th, says that at that time the atmosphere was literally darkened with flying insects of a non descript kind. Corn fields are prostrated, and the limbs of trees bent with the weight of them. Hogs and Indians feed and fatten on them however. The millions of them that were constantly dying rendered the air unfit to breathe. It seems, however, that such swarms have been known there before, and that their duration is only about 7 days.

At Greenbay there have been several rumors that the civil authority there were oppressed by the military, and were subjected to its control; but the report is positively contradicted by a statement containing the names of the principal citizens of the settlement there.

About the 4th ult. at St. Louis, Missouri, the rain fell for 30 hours, and most of the time, the account says, in torrents; in consequence of which the rivers Missouri and Mississippi, which were falling, were again rising rapidly.

An agent who advertises to transact business respecting military lands in Missouri and Illinois, says that in Missouri, deeds are required by law to be recorded in the county where the lands lie, in three months after execution, and in Illinois in twelve months. Lands in that state on which the taxes are not paid by the first of October next are subject to *treble* taxes and sale. Those in Missouri are liable to be sold after the first of November next, if the taxes be not paid.

FOREIGN.

In several papers we see it stated that the death of the late governor of the Canadas was occasioned by hydrophobia. We see nothing in the papers from that quarter to warrant any such report.

In the island of Newfoundland is a race of aborigines, called *Red Indians*, from their painting themselves with a pigment of red earth; they secrete themselves in the most unfrequented parts of the island, for they have found every human being their enemy. The Esquimaux, from Labrador, sometimes visit the northern parts of the island, and kill these Indians wherever they meet them; and the Micmacs, from the southern parts, hunt and destroy them for the sake of the skins they wear. A young female of the tribe has lately been among the white people of the island, which is said to have been the second of the race seen in about 50 years past. From the manner of life of the tribe they expected to find her a most ferocious savage, but were much surprised to find her a gentle, modest creature.

Another great fire has consumed about 100 houses more in St. John's, Newfoundland. Loss estimated at 150,000*l*.

From Texas it appears that general Long is at the head of the republican forces, which are daily augmenting, and it was reported there that a Spanish force of 1500 was on their way from Nacogdoches to defend the country.

Baron Humbolt mentions nine points where a canal could be carried across the isthmus of Darien. If the Patriots should prove successful, it is to be hoped that a measure of the kind may soon be put into operation, as it would greatly shorten the distance to the eastern world.

A letter from an officer on board the United States' ship Macedonian, dated 8th March last, at Valparaiso, states that the province of Chili is independent; the forces of the Royalists completely extirpated, except those who have entrenched themselves in the mountains in the fortress of Valdivia, who are considered as of no consequence; that the warfare has been extremely sanguinary—a war of extirmination.—The writer seems to think, that though the Indians have fought valiantly, their deeds will not appear well on the page of history. It seems also that they are at variance with the Buenos Ayreans, and for which he thinks they have reason, as it seems that the commander of the united army of the two powers, (San Martin, a Buenos Ayrean,) wishes to render the Chilians subservient to his own country. He says the country is not free—is under military government—the peasantry, he says, are brave and hardy, but very ignorant, and may easily be made the dupe of any designing chief; thinks the people, on the whole, unfit, at present, for a government like ours, and expresses a wish that they were even well established, under a limited monarchy, but that one of a more absolute kind is probably best adapted for them at present, or at least, that such a government will to all appearances be established there. Perhaps, however, the writer has taken too full a view of the dark side of the character of this people.

The Velocimanipede.—**A vehicle, so called, has** lately been constructed in England, calculated to carry three persons, and can be easily made to run 8 miles an hour. It is impelled forward somewhat on the principle of the velocipede, but constructed with 4 wheels, so as to form something like a phaeton in miniature.

Bavaria, one of the states of the Germanic empire, is stated now to contain four millions of people. From the constitution it has lately acquired, its government is now what may be called a limited monarchy. Formerly the elector of Bavaria was absolute. The deputies (representatives) of the state lately passed a vote for a more economical expenditure of the public money in regard to the army; and this they have successfully persisted in notwithstanding the urgent remonstrances to the contrary of the crown and the house of peers.

At the last meeting of the allied sovereigns of Europe, it was decreed, that they pledge themselves to use every practical means of improving the civil, social and religious condition of the Jews in their respective dominions.

From a Liverpool paper, of July 19th, a retrospect is given of the proceedings of the late Parliament, in which amongst other things it is stated that the Floridas have been ceded by Spain to the United States without any opposition on the part of the British government. The retrospect exhibits a sickly picture of affairs in that country. On the 28th of the same month a meeting was held in London for considering Mr. Owen's plan for providing employment for the poor, at which the duke of Kent presided. The plan being explained, it was resolved to carry it into effect, for which a hundred thousand pounds was necessary to be raised; of which sum about four thousand was raised immediately by subscription.

In a London paper it is stated, that the price of a well written copy of the bible, in the year 1274, was 30*l*. Some time after this the two arches of the London bridge were built for 25*l*. In those times there were but few that could write a legible hand, and to encourage learning, *the benefit of clergy* (or *clerkship*) was allowed; that is, those convicted of certain crimes were entitled to pardon if they could write a good hand.

Yesterday afternoon (says a late London paper) Mr. C. Kendal made an experiment, on the Thames, of his air jacket, or life preserver, with success. He, and his man, went a considerable distance through that river, walking upright in the water.

In Scotland a decision at law has been had by which it appears, that a marriage there is valid where the parties merely declare before witnesses that they take each other in matrimony. Such a marriage would probably be deemed valid in this state, as we have no legal regulations on the subject.

A law has lately passed in France which enables foreigners to purchase, receive and bequeath property in that kingdom. It is thought, from the cheapness of living there, added to a desirable climate, that the operation of this law will prove very beneficial to that country, in enticing manufacturers and men of moderate fortunes to fix their residence there.

The two late Spanish ministers in this country, Yrujo and Onis, according to London accounts of 29th July last, are arrested, and three judges, under the immediate superintendance of the king, have been commissioned to investigate the charges brought against them. Thus, says this account, it seems that Ferdinand is determined to exculpate himself from any blame in the Florida transaction. Whether the transaction here alluded to refers to the late Seminole war, or to the treaty for the purchase of Florida, does not appear, but most probably to the former.

It appears that some of the charges against Don Onis and the Marquis Yrujo, are connected with the Florida treaty, in which these diplomatists are said to have exceeded their instructions.

On the 29th ult. 3,000 troops arrived at Havanna from Cadiz, destined against the Patriots.

A letter from Cadiz, of the 27th July last, says that a plan was laid there for re-establishing the constitution of the Cortes, which was to have been effected by the aid of the army assembled there, but that the plan was defeated by the treachery of the man who was at the head of the plot, and who had the means of effecting it. The account does not mention his name. From this have probably arisen the reports of insurrection among the troops there.

A letter received at Washington, from Tangiers, of July 12th, says the plague is raging with great violence in many parts of that country.

It is said the Pope has consented to divorce the wife of Bonaparte, in order that she may obtain a more *tangible* husband in the person of the king of Prussia.

The project of a constitution for Prussia has been submitted to the king, the spirit of which is said to be liberal, and in conformity with the feelings of the age, and the wishes of the people. If adopted Prussia will be a limited monarchy.

A deputation from the manufacturers and merchants of Germany have petitioned the respective governments of that empire to lay a duty of 50 per cent. on the importation of all fabrics imported from England, and other states which prohibit the manufactures of Germany. On the fabrics of such states as have no such prohibition, a duty of 15 per cent. A good example for us.

The Russian soldiers are scattered over the whole empire, and ordered to work with the peasants.

IMPORTANT TO FARMERS.

One of Hotchkiss' newly invented patent *Thrashing Machines*, on a small scale, which is calculated to be worked by one horse, and tended by two hands, which will thrash about 50 bushels of grain per day, may be examined by calling at No. 108 State-street, Albany.

Machines on this principle can be enlarged, so as to trash and clean 3 hundred bushels per day, and can be afforded for less than one half of the expense of the English thrashing machines.

Mr. Kimball, the agent for the patentee, resides at No. 118 State-street, who will dispose of rights for states, counties, towns or single machines, or will furnish ready made machines according to order.

This machine was considered so much superior to every other brought before the Massachusetts agricultural society, in October, 1818, that the society awarded Mr. Hotchkiss the premium of 75 dollars.

OBITUARY.

DIED—In this city on the 17th instant, Mrs. JOHANNA S. HOWE, the amiable consort of Estes Howe, Esq. aged 34.

Carving, Gilding and Ornamental Work.

LEWIS LEMET

OFFERS his services in the above line, and from his perfect knowledge and experience in the business will warrant his work superior to any other, and at prices perfectly satisfactory, he therefore solicits a preference.

GILT CORNICES, PICTURE and LOOKING-GLASS FRAMES, &c executed with dispatch.

Albany, August, 1819. 14

PROPOSALS,

For carrying the Mail on the following routes will be received at theGeneral Post Office, until Saturday, the 2d of October next.

1. From Peekskill by Crum Pond to Somerstown, once a week, 14 miles.

Leave Peekskill every Tuesday at 6 *a m* and arrive at Somerstown by 9 *a m*.

Leave Somerstown at 10 *a m* and arrive at Peekskill by 5 *p m*.

2. From Pine Plains to North Amenia, 8 miles.

Leave Pine Plainsevery Tuesday at 6 *a m* and arrive at North Amenia by 3 *a m*.

Leave North Amenia at 10 *a m* and arrive at Pine Plains by noon.

3. From Great Bend, Pa. by Harmony and Windsor to Deposit, once a week, 28 miles.

Leave Deposit every Saturday a 6 *a m* and arrive at Great Bend by 2 *p m*.

Leave Great Bend every Friday at 10 *a m* and arrive at Deposit by 6 *p m*.

4. From Albany by Spencertown to Sheffield, Ms. 43 miles.

Leave Albany every Wednesday at 6 *a m* and arrive at Sheffield by 6 *p m*.

Leave Sheffield every Thursday at 6 *a m* and arrive at Albany by 6 *p m*.

5. From Troy by Brunswick, Grafton and Petersburgh to Williamstown, Ms. once a week, 28 1-2.

Leave Troy every Monday at 10 *a m* and arrive at Williamstown by 6 *p m*.

Leave Williamstown every Tuesday at 6 *a m* and arrive at Troy by 2 *p m*.

6. From Schenectady to Utica on the south side of Mohawk River, once a week, 76 miles.

Leave Schenectady every Tuesday at 6 *a m* and arrive at Utica on Wednesday by 6 *p m*.

Leave Utica every Thursday at 6 *a m* and arrive at Schenectady on Friday by 6 *p m*.

7. From Cherry Valley by Long Patent, Westford and Decatur to Worcester, once a week, 21 miles.

Leave Cherry Valley every Tuesday at 5 *a m* and arrive at Worcester by 11 *a m*.

Leave Worcester at 1 *p m* and arrive at Cherry Valley by 7 *p m*.

8. From Cambridge by Hoosick, Petersburgh, Berlin and Stephentown to Lebanon, once a week.

Leave Cambridge every

Leave Lebanon every

9. From Waterford by Orange & Jone's to Ballston Spa, once a week, 20 miles.

Leave Waterford every Tuesday at 6 *a m* and arrive at Ballston Spa by 11 *a m*.

Leave Ballston Spa at 2 *p m* and arrive at Waterford by 7 *p m*.

10. From Waterloo by Clyde Village to Port Glasgow, once a week.

Leave Waterloo every Friday at 6 *a m* and arrive at Port Glasgow by 6 *p m*.

Leave Port Glasgow every Saturday at 6 *a m* and arrive at Waterloo by 6 *p m*.

11. From South Nunda by M'Clure's to Ellicottsville in Cattaragus county.

Leave South Nunda every Friday at 6 *a m* and arrive at Ellicottsville by 6 *p m*.

Leave Ellicottsville every Saturday at 6 *a m* and arrive at South Nunda by 6 *p m*.

NOTES.

1. The Post-master General may expedite the mails and alter the times for arrival and departure at any time during the continuance of the contract, he stipulating an adequate compensation for any extra expense that may be occasioned thereby.

2. Fifteen minutes shall be allowed for opening and closing the mail at all offices where no particular time is specified.

3. For every thirty minutes delay (unavoidable accidents excepted) in arriving after the times prescribed in the contract, the contractor shall forfeit one dollar; and if the delay continue until the departure of any depending mail, whereby the mails destined for such depending mail lose a trip, a forfeiture of double the amount allowed for carrying the mail one trip shall be incurred, unless it shall be made to appear that the delay was occasioned by unavoidable accident; in which case the amount of pay for the trip, will, in all cases, be forfeited and retained.

4. Persons making proposals are desired to state their prices by the year. Those who contract will receive their pay quarterly—in the months of May, August, November, and February, one month after the expiration of each quarter.

5. No other than a free white person shall be employed to convey the mail.

6. Where the proposer intends to convey the mail in the body of a stage carriage, he is requested to state it in his proposals.

7. The Post-master General reserves to himself the right of declaring any contract at an end whenever one failure happens, which amounts to the loss of a trip.

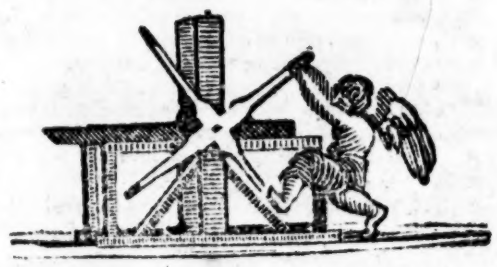
9. The distance stated are such as have been communicated to this office, and some of them are doubtless incorrect; on this subject the contractor must inform himself: no alteration will be made in the pay on account of any error in this respect.

9. The contracts are to be in operation on the first day of January next; and to end December 31, 1820.

RETURN J. MEIGS, Jr. *Post-master General.*

General Post Office, Washington City, May 26, 1819.

ENGRAVING,



And Copperplate Printing.

THE Subscriber continues the engraving and Copperplate printing, in its various bsanches, at No. 82, State-street. Having for several years printed the bills of the principal banks in this state, whose patronage he continues to receive, from a conviction that, by his care of their plates, he yields them two thousand impressions more than they formerly received, he can offer no better recommendation to the public for the faithful execution of all printing in his line, that they may please to favour him with.

L. LEMET.

Albany, July 17, 1819.

$40,000.

By authority of Congress.

NATIONAL LOTTERY.

SECOND CLASS.

SCHEME.

100	Prizes of D.	1,000	is	D. 100,000
1	Prize of	40,000		40,000
2	do.	10,000		20,000
4	do.	5,000		20,000
20	do.	500		10,000
60	do.	100		6,000
2,000	do.	40		104,000
				D. 300,000
10,000 Tickets, at 30 dolls.				300,000

PRIZES ALL FLOATING.

First 1,000 Blanks entitled to 40 dollars each.

2	Prizes of 5,000	floating	from 1st day's	drawing.
1	do. 5,000	do	5th	do.
1	do. 5,000	do.	7th	do.
1	do. 10,000	do.	10th	do.
1	do. 10,000	do.	16th	do.
1	do. 40,000	do.	19th	do.

The drawing of 500 Tickets is called a day's drawing, and will regulate that of the above prizes.

The drawing will commence at the city of Washington, in the month of October next, positively, unless the sale of Tickets will allow it to be done *sooner*.

Cash will be promptly advanced for prizes, at either of D. GILLESPIE'S United States Lottery Office, No. 114 Broadway, opposite the City Hotel, New-York; No. 11 South Third, between Chesnut and Market-streets, Philadelphia; and Pennsylvania Avenue, City of Washington.

This splendid Lottery being under the authority of the United States, and the prizes all floating as specified, offers the greatest inducements to venders and adventurers. As the tickets can be sold in any part of the United States, orders (post paid) forwarded to the subscriber at either of the above offices, from venders, associates, or individuals, for Tickets or chances, will receive thankful attention, from

D. GILLESPIE.

*** Present retail price of Tickets, 32 dollars.

Sale of Land for Taxes.

State of New-York—Comptroller's Office.

PUBLIC Notice is hereby given, that lists of certain lands liable to be sold for taxes, have been forwarded to the several counties in this state, in order to be deposited in the several county treasurers' and town clerks' offices, respectively, for the information of all persons concerned; and that the said lists may be examined at either of the said offices, at all reasonable hours: And notice is hereby also given, that on *Thursday, the seventh day of October next*, at ten o'clock in the forenoon, at the capitol, in the city of Albany, and on the next succeeding days, I will sell at public auction, to the highest bidder, so much of each lot, piece or parcel of land mentioned and described in the said lists, as will be necessary to pay all taxes, interest and charges now due, or that may grow and may be due thereon at the time of sale.

The conditions of sale will be, that the purchasers within forty-eight hours after the sale, pay the purchase moneys and receive certificates of their purchases; and that after the expiration of two years from the date of their certificates, they receive conveyances for the lands purchased by them respectively, unless the owners, or those claiming to be such, of the lands so purchased, shall, previous to the expiration of the said two years, pay to the comptroller, for the use of the said purchasers, their heirs and assigns, the amount of the purchase moneys, with interest, at the rate of twenty per centum per annum.—The lands sold to be subject to all claims of the state thereon. And in case any land to be purchased at the said sale and that may be conveyed in pursuance thereof, shall at the time of conveyance be in the actual possession and occupancy of any person or persons, the title of the purchaser shall then and in that case be subject to the stipulations and provisions of the fifth section of the act, entitled "an act to repeal in part the act, entitled "an act providing more effectually to ascertain and determine the true value of real estates within this state, and for other purposes," and further to amend the act for the assessment and collection of taxes" passed April 13, 1819.

ARCH'D. M'INTYRE, Comptrolle

Albany, May 27th, 1819.

☞ Persons who may have made payments into the treasury for taxes, and omitted to have their receipts presented at the comptroller's office to have them entered and countersigned as required by law, are advised to present them in order to be so entered and countersigned before the day of sale; or that in case of failing to do so, their lands will be sold, and they thereafter be deprived of the benefit of all such payments.

Payments for taxes cannot be received on the days of sale, nor for two days prior to the sale.

AN APPRENTICE WANTED.

A SMART, active lad, about 13 or 14 years of age, wanted as an apprentice to the Watch Making business. None need apply unless well recommended, and one from the country would be preferred. Enquire at No. 437, South Market-street, of ALEXANDER M'HARG.

Albany, July 2, 1819.

PHYSIOGNOTRACE.

LIKENESSES ENGRAVED.

L. LEMET.

RESPECFULLY informs the ladies and gentlemen of Albany, that he takes likenesses in Crayon as large as life, and engraves them of a reduced size in a new and elegant style. The price of the large likenesses, with an engraved plate and twelve impressions, is 25 dollars for gentlemen, and 35 dollars for ladies, or 8 dollars for the drawing only.

For further particulars apply at his house, No. 82 State-street, where a great number of portraits of distinguished characters may be seen.

June 5, 1819.

EAGLE AIR FURNACE.

ORDERS for this Furnace may be left at THOMAS GOULD'S, No. 63, State-street, or at the Furnace, No. 84, Beaver-street, where strict attention is paid by one of the proprietors: who has

CONSTANTLY ON HAND,

Potash Kettles, from 18 to 55 dollars; Bark Mills, of late improvement; large and small Caldrons; Oven and Close Stoves, and Castings in general.

PATTERNS.

This Furnace is furnished with a general assortment of Patterns, among which are Patterns of latest improvement for Merchant and Country Mills, Cotton and Carding Machinery, &c. Patterns of any description furnished on the shortest notice.

Warner Daniels and Co.

N. B. A constant supply of LIVERPOOL and VIRGINIA COAL, for family and smith's use.

Albaay, June 5, 1819.

ALBANY: PRINTED FOR THE EDITOR,

BY JOHN O. COLE.

☞ COMMUNICATIONS, SUBSCRIPTIONS, and ADVERTISEMENTS, for this paper, and PRINTING JOBS, of every description, which will be neatly executed, at fair prices, received at the Post Office. All letters from abroad, directed to the Postmaster, Albany, will be duly attended to.

TERMS.

THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.